

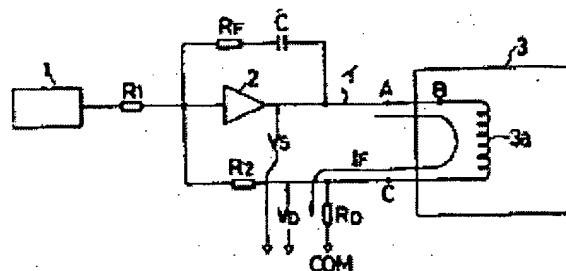
TROUBLE DETECTOR FOR COIL

Patent number: JP58066070
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Inventor: SAITOU SHIGERU
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- international: G01R31/02; G05B23/02
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Abstract of JP58066070

PURPOSE: To handle the trouble in a coil current control circuit quickly while protecting it by detecting the disconnection and short-circuit of a coil in the circuit having a feedback circuit of a coil current.

CONSTITUTION: Disconnections of a coil 3a are possible at points A, B and C, where a short-circuit occurs at the points A and C. When a disconnection occurs, the voltage V_D of the resistance R_D zeros and the voltage V_S rises to let current I_F flow. When a short circuit occurs, the V_S falls because of $V_S = V_D$. But as current fails to flow through the coil 3a, command from a command section 1 increases and the V_D itself rises. When higher and lower levels are represented by H and L as compared with the reference value, the voltages of the coil are as shown by the table. This facilitates the determination on whether the coil is normal or in trouble.



命令 F	V_S	V_D	判定
1	H	H	正常
2	H	L	断線
3	L	H	短絡
4	L	L	正常



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**(54) TROUBLE DETECTOR
FOR COIL**

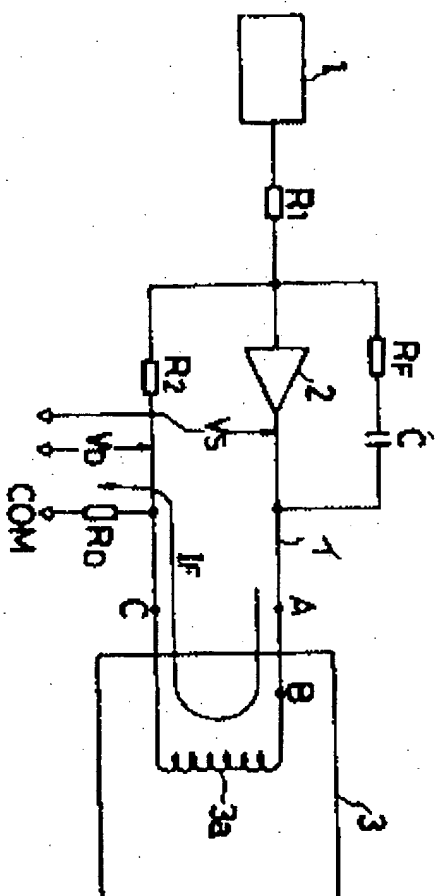
(57) Abstract:

PURPOSE: To handle the trouble in a coil current control circuit quickly while protecting it by detecting the disconnection and short-circuit of a coil in the circuit having a feedback circuit of a coil current.

CONSTITUTION: Disconnections of a coil 3a are possible at points A, B and C, where a short-circuit occurs at

the points A and C. When a disconnection occurs, the voltage VD of the resistance RD zeros and the voltage VS rises to let current IF flow. When a short circuit occurs, the VS falls because of $VS=VD$. But as current fails to flow through the coil 3a, command from a command section 1 increases and the VD itself rises. When higher and lower levels are represented by H and L as compared with the reference value, the voltages of the coil are as shown by the table. This facilitates the determination on whether the coil is normal or in trouble.

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判定	V_D	V_B	V_{-P}
正常	H	H	1
断線	L	H	2
短絡	H	L	3
正常	L	L	4

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